

REMARKS

Claims 1-70 are pending in the present application. Applicant has amended claims 1, 39, 45, 55 and 70 and cancelled claims 2-38, 40-44, 46-54, and 56-69 herein. Applicant respectfully requests reconsideration of the claims in view of the following remarks.

The drawings were objected to under 37 CFR 1.83(a). Pursuant to a telephone conference with the Examiner on November 20, 2007, the Examiner indicated that this objection would be withdrawn.

Claim 29 was objected to under 37 CFR 1.75 as being a substantial duplicate of claim 26. Claim 29 has been cancelled herein.

Claims 67 and 68 were rejected under 35 U.S.C. 101 because the claimed invention was directed to non-statutory subject matter. Claims 67 and 68 have been cancelled herein.

Claims 1-31, 38-43, 45-50, 52, 54-55, 57-58, 61-62, and 65-70 were rejected under 35 U.S.C. 112, second paragraph. Claims 1, 39, 45, 55 and 70 have been amended to remove the antecedent basis problems identified by the Examiner. The claims 2-31, 38, 40-43, 45-50, 54, 57-58, 61-62 and 65-69 have been cancelled herein.

Claims 1-6, 10-31, 38-43, 45-50, 52, 57-58, 61-62, 65-66, and 69-70 were rejected under 35 U.S.C. 102(b) based on Heumann (U.S. Patent No. 6,201,850).

Referring to independent claim 1, the claim recites in part:
"obtaining a first sequence of images of a calibration device utilizing an apparatus;
determining a first mean gray level in a zone of interest in a first image in the first sequence of images;

determining a second mean gray level in a zone of interest in another image in the first sequence of images;

determining a variation value corresponding to a variation between the first mean gray level and the second mean gray level;

obtaining a second sequence of images of the object utilizing the apparatus;

determining a third mean gray level in a zone of interest in a first image in the second sequence of images; and

correcting another image of the object in the second sequence of images based on the variation value and the third mean gray level."

Referring to Heumann, the reference is directed to an automated X-ray inspection system for printed circuit assemblies. The reference, however, not provide any teaching of: "obtaining a first sequence of images of a calibration device utilizing an apparatus", as recited in claim 1 as amended. In particular, Heumann does not even disclose generating a single image of a calibration device. Further, the reference does not provide any teaching of: "determining a first mean gray level in a zone of interest in a first image in the first sequence of images", as recited in claim 1 as amended. Further, the reference does not provide any teaching of: "determining a second mean gray level in a zone of interest in another image in the first sequence of images", as recited in claim 1 as amended.

Further, the reference does not provide any teaching of: "determining a variation value corresponding to a variation between the first mean gray level and the second mean gray level", as recited in claim 1 as amended. In contrast, Heumann determines a gray scale level of solder by subtracting a background gray level in an X-ray image from a foreground gray level in the same X-ray image. See column 25, lines 50-55. Thus, Heumann does not utilize first and second mean gray levels in first and second images, respectively, to determine a variation value as recited in claim 1 as amended.

Further, the reference does not provide any teaching of: "determining a third mean gray level in a zone of interest in a first image in the second sequence of images", as recited in

claim 1 as amended. Finally, the reference does not provide any teaching of: "correcting another image of the object in the second sequence of images based on the variation value and the third mean gray level", as recited in claim 1 as amended.

Because Heumann does not teach each and every limitation of independent claim 1 as amended, and claims 39, 45, 55 which depend from claim 1, applicant submits that claims 1, 39, 45 and 55 are allowable over this reference.

The Examiner objected to claim 54 as being dependent on a rejected base claim but would be allowable if rewritten in independent form including all limitations of the base claim (e.g., claim 1) and any intervening claims (e.g., claim 38). Applicant has amended independent claim 70 to include substantially all of the limitations of original claims 1, 38 and 54. Accordingly, applicant submits that independent 70 is now in condition for allowance.

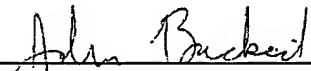
Claims 7-9 were rejected under 35 U.S.C. 103(a) is being unpatentable over Heumann. Claims 7-9 have been cancelled herein.

If the Examiner has any questions regarding the presently submitted response, applicant's attorney respectfully requests the courtesy of a telephone conference to discuss any matters in need of attention. If there are any additional charges with respect to this response or otherwise, please charge them to Deposit Account No. 06-1130.

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Respectfully submitted,

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